

CONTINUOUSLY VARIABLE TRANSMISSION FLUID AND METHOD OF MAKING SAME

ABSTRACT OF THE DISCLOSURE

5 A continuously variable transmission fluid comprises a hydrogenated cyclic dimer of α -alkyl styrene and a low temperature viscosity control agent. The fluid does not contain more than 20 wt.% of a linear dimer of the α -alkyl styrene, and the fluid has a kinematic viscosity of greater than about $2.5 \times 10^{-6} \text{ m}^2/\text{s}$ at 100°C , as measured according to ASTM D-445. The dimerized α -alkyl styrene can be made by (a) contacting an α -alkyl styrene with a supported acid catalyst to
10 effect oligomerization of the α -alkyl styrene to a cyclic dimer; and (b) hydrogenating the cyclic dimer in the presence of a hydrogenation catalyst to produce a fully hydrogenated cyclic dimer, wherein the α -alkyl styrene is contacted with the supported acid catalyst in the absence of a solvent for the α -alkyl styrene and a free acid.